

In brief

German medical council warns on xenotransplants: The German federal medical council's scientific advisory committee has said that there are too many risks in xenotransplantation, especially the transmission of infectious agents, for it to be tried in patients. But the council sees it as the most likely means of providing sufficient organs in future.

Quebec nurses end strike: Quebec's 47 500 nurses have ended their four week illegal strike over pay (17 July, p 144) and have announced that they will seek mediation. They have vowed to continue their struggle by means of pressure tactics that will not put patients at risk.

UK Treasury introduces PFI guidelines: The UK Treasury has published new contract guidelines for private finance initiative projects, which it says will act as a blueprint for future development and ensure that contracts across different public services will be able to follow a consistent approach (www.butterworths.co.uk). It has also created a new private sector led body, Partnerships UK, to help increase investment in public services from private sources (www.hm-treasury.gov.uk).

Royal college issues guidance on oxygen treatment: A report from the Royal College of Physicians, *Domiciliary Oxygen Therapy Services*, makes the first evidence based recommendations for the use of oxygen treatment at home and for activities outside the home for patients with chronic obstructive pulmonary disease.

UK government will consult on IVF tracing: The United Kingdom's Department of Health will issue a consultation paper later this year about what information should be given to children born as a result of sperm or egg donation.

News extra 
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Max-Planck Society investigates misconduct

Annette Tuffs *Heidelberg, Germany*

The Max-Planck Society has set up a committee to investigate allegations of scientific misconduct involving one of its directors, Peter Seeburg, director at the Max-Planck Institute for Medical Research in Heidelberg, Germany.

The allegation is that in 1979 Seeburg published false information in a scientific paper in the journal *Nature* (1979;281: 544-8), which described experiments resulting in the expression of human growth hormone in bacteria.

Professor Seeburg confessed two months ago to publishing a falsehood (20 years after it appeared), when he was giving evidence in a US court case that is trying to determine the

patency rights to the DNA for human growth hormone.

The University of California is suing Genentech for \$1.2bn (£750m) compensation, claiming that the company used the university's patented genetic material for experiments in early 1979, which led to the creation of Genentech's blockbuster growth hormone drug Protopin. Professor Seeburg had been crucial in developing the drug, because he worked on human growth hormone, first at the University of California and then at Genentech.

In court, Professor Seeburg admitted that on the night of 31 December 1978 he went to the university laboratory where he used to work, removed a sample of human growth hormone DNA, and took it to Genentech.

He then allegedly used this stolen material in spring 1979 to help Genentech develop the bacterial synthesis process that produced Protopin. He told the court that he did not say in the *Nature* paper that the university DNA was used, because of the potential legal implications. His

former colleagues at Genentech, however, denied in court that the DNA from the University of California was ever used in their landmark experiments.

The two opposing sides, Professor Seeburg and his former colleagues, outlined their respective positions in correspondence to *Nature* in May (1999;399:298). Professor Seeburg referred to his falsehood in his 1979 paper as a "technical inaccuracy" that had no bearing on the conclusions of the *Nature* paper, which were correct. He justified his theft by pointing out that 100 000 children worldwide have been helped by Genentech's swift development of human growth hormone.

His former colleagues from Genentech, coauthors of the original *Nature* paper, denied that the data submitted to *Nature* had been falsified, claiming that it was technically impossible to fabricate data from similar work, as Professor Seeburg had alleged in his correspondence. To prove this, Genentech published the laboratory notebooks on the web (www.gene.com/notebooks/). □

Viagra makes flowers stand up straight

Judy Siegel-Itzkovich *Jerusalem*

Viagra (sildenafil citrate) is good not only for treating male impotence. Israeli and Australian researchers have discovered that small concentrations of the drug dissolved in a vase of water can also double the shelf life of cut flowers, making them stand up straight for as long as a week beyond their natural life span.

They have already tested Viagra on strawberries, legumes, roses, carnations, broccoli, and other perishables. In this latest research they found that 1 mg of the drug (compared with 50 mg in one pill taken by impotent men) in a solution was enough to prevent two vases of cut flowers from wilting for as much as a week longer than might be expected.

Professor Yaacov Leshem, a plant researcher at Bar-Ilan University in Ramat Gan, Israel, and Professor Ron Wills of the food technology department of the

University of Newcastle, Australia, also patented a safe, cheap process for increasing the shelf life of fruit, vegetables, and cut flowers using nitric oxide. The produce and cut flowers were fumigated with the colourless, odourless gas, an environmental pollutant that in minute quantities acts as the body's most important signalling molecule.

The results of the applied research on nitric oxide were first fully reported in late 1998 in *Plant Physiology and Biochemistry* (1998;36:825-33) and have since been the topic of discussion at international conferences of the food storage and packaging industry. Professor Leshem will present his discovery at the opening plenary session of the September 1999 international conference on fresh cut produce in England.

An unexpected finding of Professor Leshem's group is that Viagra has a similar effect on plant ripening as it does on men's sexual organs. Viagra increases the vase life of flowers by retarding the breakdown of cyclic guanosine monophosphate (cGMP) (the production of which is mediated by nitric oxide). □



KEVIN SUMMERS/STONY IMAGES

In need of some Viagra?

Both chemicals could provide the food industry with entirely new, dramatically improved processes for preserving agricultural produce, Professor Leshem said.

"Nitric oxide is practically free and plentiful, with no identifiable side effects at the very low concentrations we used," he added. "Right now, Viagra costs much more but does have certain advantages over nitric oxide—for example, it's easier to use in cut flowers."

"It is now up to industry to develop the engineering methods for large scale, pretreatment of produce based on our discoveries." □